

What is claimed is:

1. A spinner disc for fiberizing a molten thermoplastic fiberizable material in a rotary fiberization process, comprising:

a base plate; the base plate having means for mounting the spinner disc on a drive shaft for rotating the spinner disc about an axis perpendicular to the base plate; the base plate having an outer annular peripheral edge portion; an annular peripheral sidewall having a lower annular edge portion and an upper annular edge portion; the annular peripheral sidewall extending upward from the outer annular peripheral edge portion of the base plate; the outer annular peripheral edge portion of the base plate being integral with the lower annular edge portion of the annular peripheral sidewall; an upper annular reinforcing flange extending radially inward from the upper annular edge portion of the annular peripheral sidewall; the upper annular reinforcing flange being integral with the upper annular edge portion of the annular peripheral sidewall; the annular peripheral sidewall having a plurality of annular extending rows of fiberizing holes therein for fiberizing thermoplastic materials by centrifugal force; the annular extending rows of fiberizing holes extending parallel to the base plate; and at least an uppermost row of the annular extending rows of fiberizing holes being interrupted by a plurality of spaced apart generally vertically extending holeless retaining bands for maintaining an upper portion of the spinner disc that includes the upper annular reinforcing flange connected to the annular peripheral sidewall when the annular peripheral sidewall fails structurally due to hole wear and enlargement that occurs during service along one or more of the annular extending rows of fiberizing holes interrupted by the generally vertically extending holeless retaining bands.

2. The spinner disc according to claim 1, wherein:

the spaced apart generally vertically extending holeless retaining bands are equidistantly spaced from each other.

3. The spinner disc according to claim 1, wherein:

there are three of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.

4. The spinner disc according to claim 1, wherein:
there are four of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
5. the spinner disc according to claim 1, wherein:
the generally vertically extending holeless retaining bands extend through at least an uppermost three rows of the rows of fiberizing holes.
6. The spinner disc according to claim 5, wherein:
the generally vertically extending holeless retaining bands are equidistantly spaced from each other.
7. The spinner disc according to claim 5, wherein:
there are three of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
8. The spinner disc according to claim 5, wherein:
there are four of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
9. the spinner disc according to claim 1, wherein:
the generally vertically extending holeless retaining bands each extend through all of the rows of fiberizing holes.
10. The spinner disc according to claim 9, wherein:
the generally vertically extending holeless retaining bands are equidistantly spaced from each other.
11. The spinner disc according to claim 9, wherein:
there are three of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
12. The spinner disc according to claim 9, wherein:
there are four of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.

13. The spinner disc according to claim 1, wherein:
the generally vertically extending holeless retaining bands extend at a diagonal to the vertical.
14. The spinner disc according to claim 13, wherein:
there are four of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
15. the spinner disc according to claim 13, wherein:
the generally vertically extending holeless retaining bands extend through all of the rows of fiberizing holes.
16. The spinner disc according to claim 13, wherein:
the generally vertically extending holeless retaining bands are equidistantly spaced from each other.
17. The spinner disc according to claim 13, wherein:
there are three of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
18. The spinner disc according to claim 13, wherein:
there are four of the spaced apart generally vertically extending holeless retaining bands equidistantly spaced from each other.
19. A method of fiberizing molten thermoplastic fiberizable materials in a rotary fiberization process, comprising:
rotating a spinner disc; the spinner disc including a base plate, an annular peripheral sidewall, and an upper annular reinforcing flange; the base plate being mounted on a drive shaft for rotating the spinner disc about an axis perpendicular to the base plate; the base plate having an outer annular peripheral edge portion; the annular peripheral sidewall having a lower annular edge portion and an upper annular edge portion; the annular peripheral sidewall extending upward from the outer annular peripheral edge portion of the base plate; the outer annular peripheral edge portion of the base plate being integral with the lower annular edge portion of

the annular peripheral sidewall; the upper annular reinforcing flange extending radially inward from the upper annular edge portion of the annular peripheral sidewall; the upper annular reinforcing flange being integral with the upper annular edge portion of the annular peripheral sidewall; the annular peripheral sidewall having a plurality of annular extending rows of fiberizing holes therein for fiberizing thermoplastic materials by centrifugal force; the annular extending rows of fiberizing holes extending parallel to the base plate; and at least an uppermost row of the annular extending rows of fiberizing holes being interrupted by a plurality of spaced apart generally vertically extending holeless retaining bands for maintaining an upper portion of the spinner disc that includes the upper annular reinforcing flange connected to the annular peripheral sidewall when the annular peripheral sidewall fails structurally due to hole wear and enlargement that occurs during service along one or more of annular extending rows of fiberizing holes interrupted by the generally vertically extending holeless retaining bands;

introducing a molten fiberizable material onto an upper surface of the base plate of the rotating spinner disc;

fiberizing the molten fiberizable material by passing the molten fiberizable material from the base plate radially outward through the annular extending rows of fiberizing holes in the annular peripheral sidewall of the rotating spinner disc; and

continuing to operate the rotating spinner disc until a structural failure develops one or more of the annular extending rows of fiberizing holes.

20. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc are equidistantly spaced from each other.

21. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

there are three of the spaced apart generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc that are equidistantly spaced from each other.

22. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

there are four of the spaced apart generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc that are equidistantly spaced from each other.

23. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc extend through at least an uppermost three rows of the rows of fiberizing holes.

24. The method of fiberizing molten thermoplastic fiberizable materials according to claim 23, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc are equidistantly spaced from each other.

25. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc extend all of the way through the annular extending rows of fiberizing holes.

26. The method of fiberizing molten thermoplastic fiberizable materials according to claim 25, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc are equidistantly spaced from each other.

27. The method of fiberizing molten thermoplastic fiberizable materials according to claim 19, wherein:

the holeless retaining bands in the annular peripheral sidewall of the spinner disc extend at a diagonal to the vertical.

28. The method of fiberizing molten thermoplastic fiberizable materials according to claim 27, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc extend through at least an uppermost three rows of the rows of fiberizing holes.

29. The method of fiberizing molten thermoplastic fiberizable materials according to claim 27, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc extend all of the way through the annular extending rows of fiberizing holes.

30. The method of fiberizing molten thermoplastic fiberizable materials according to claim 27, wherein:

the generally vertically extending holeless retaining bands in the annular peripheral sidewall of the spinner disc are equidistantly spaced from each other.